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IRISH IMMIGRANT PARTICIPATION IN THE CONSTRUCTION OF THE ERIE CANAL



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IRISH IMMIGRANT PARTICIPATION IN THE CONSTRUCTION OF THE ERIE CANAL

by

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To Dr. Thomas M. Pitkin

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DIVISION OF HISTORY

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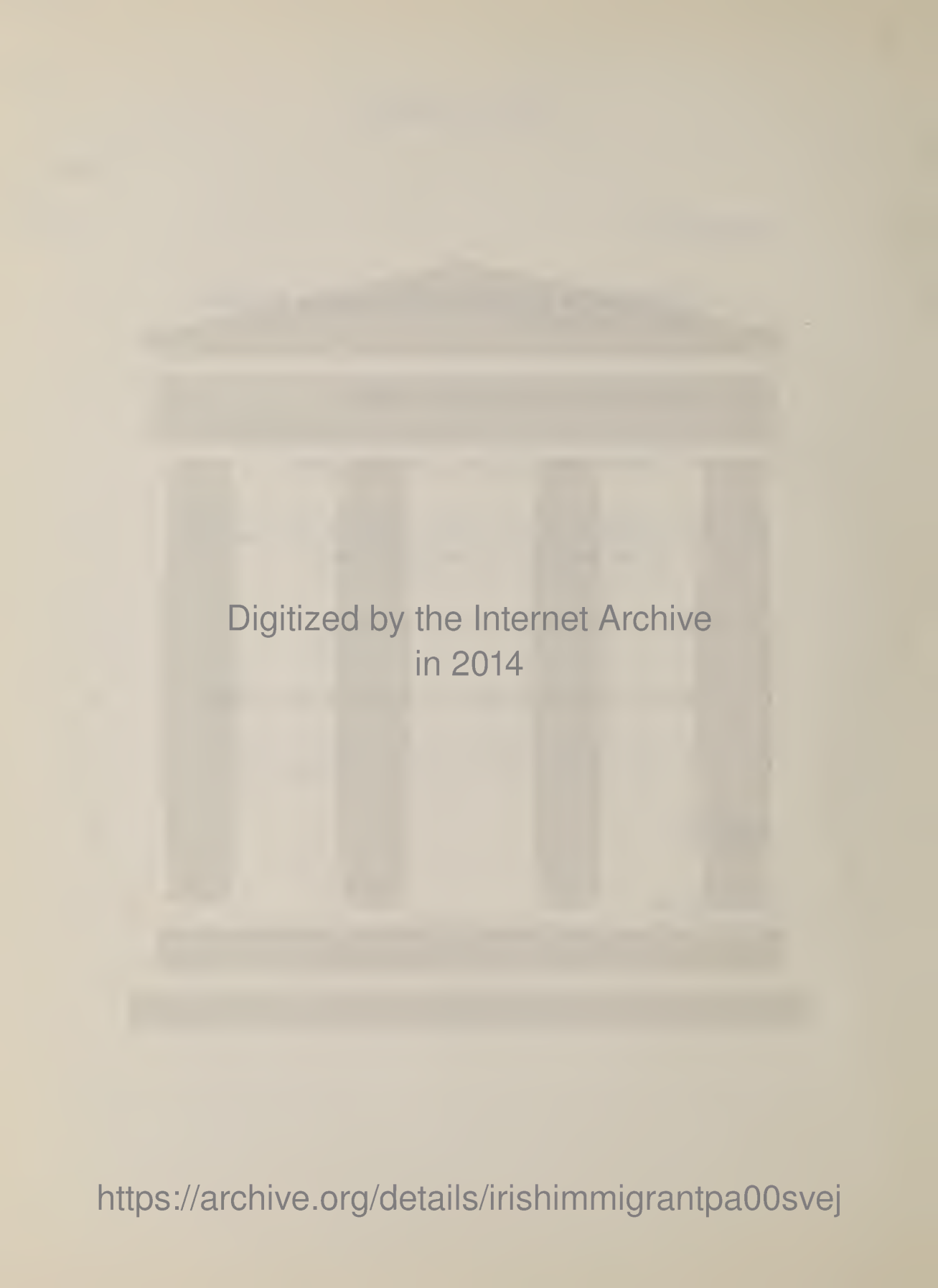
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INTRODUCTION

Irish Immigrant Participation in the Construction of the Erie Canal (AMI-H-2, 1966) is a study of the circumstances leading to the idea of building the Erie Canal, the construction of this great work, and the Irish participation in it.

The economic importance of the Nation's rivers and lakes was early realized by many prominent Americans, including George Washington. With the purchase of Louisiana, the United States acquired free and uninterrupted navigation of the Mississippi. The Louisiana Purchase, coupled with the introduction of steam navigation, accelerated the settlement of the Mississippi Valley and the territory bordering upon the great rivers of the West, the Missouri, the Ohio, and the Illinois.

A Resolution adopted on February 4, 1808, in the New York House of Assembly called for the appointment of a joint committee of the Senate and the Assembly of the State of New York to explore the possibilities of opening a communication between the tide waters of the Hudson River and Lake Erie. On April 11, 1808, the New York State Legislature passed a law authorizing the Treasurer to pay to the Surveyor-General a sum not to exceed six hundred dollars for an exploration and survey of possible

routes of communication between Lake Erie and the Hudson River. Surveyor General Simeon De Witt appointed James Geddes of Onondaga to carry out this survey, and on January 20, 1809, he presented to De Witt a favorable report on an inland route.

By virtue of a Resolution passed on March 15, 1810, by both branches of the New York State Legislature, Gouverneur Morris, Stephen Van Rensselaer, De Witt Clinton, Simeon De Witt, William North, Thomas Eddy, and Peter B. Porter were appointed Commissioners for exploring the entire canal route. Subsequently, a law was passed on April 5, 1810, authorizing the Treasurer to pay to the Commissioners a sum not exceeding $3,000 to implement the Resolution passed on March 15, 1810.

The Commissioners studied the various routes and their advantages and disadvantages, and on March 2, 1811, submitted a favorable report on the advisability of the canal undertaking. Their report resulted in the passage of a law on April 8, 1811, by which the Commissioners received special powers to implement the proposed inland navigation, such as power to buy lands through which navigation might be carried, and to employ engineers, surveyors and other people as they should deem necessary to fulfill the obligations imposed on them by the Act.

The War of 1812 delayed the plans for construction of the canal, and Federal assistance was vetoed by President

James Madison. In addition new doubters and obstructionists were rising in opposition to the Canal project. During the summer of 1813 the Commissioners suspended the surveys because of military operations which were not "favorable to internal improvement."

With the ending of the War of 1812 there was renewed interest throughout the country in the provision of good and convenient roads, bridges, and canals, which would facilitate the transportation of goods and produce from one place to another, and render travelling easy, safe, and expeditious.

In New York this interest was manifested by the revival of the plan for the construction of an Erie canal. On April 17, 1816, a law was passed providing for the improvement of internal navigation in the State of New York, and Messrs. Stephen Van Rensselaer, De Witt Clinton, Samuel Young, Joseph Ellicott, and Myron Holle were appointed Canal Commissioners, while the names of Gouverneur Morris, Simeon De Witt, William North, Thomas Eddy, and Peter B. Porter, all previously Commissioners, were omitted. Shortly afterward the newly appointed Commissioners selected De Witt Clinton as their President. At a meeting held in New York on May 17, 1816, the Commissioners decided to divide the proposed Erie Canal into three sections, with an engineer for each section, "assisted by a surveyor, and a competent number of hands." On February 17,

1817, the Commissioners submitted to the Assembly its report giving conclusive evidence in favor of the proposed canals. On the strength of this report, on April 15, 1817, "An act respecting navigable communications between the Great Western and Northern Lakes and the Atlantic Ocean" was passed into law. In the same month Mr. Clinton was elected Governor of the State of New York, and the Commissioners, as soon as the season permitted, proceeded to the execution of their duties. With the passage of the law of April 15, 1817, authorizing construction between the Mohawk and Seneca rivers, the Commissioners began work in earnest, and on July 4, 1817, work on the Canal itself was commenced with the excavation at Rome, inaugurating a monumental project which lasted over eight years. The Canal was built jointly by a native and Irish immigrant work force. Malaria and mud were the two principal obstacles in the construction of the Canal at the Montezuma Marshes, where several contractors gave up in this malarial swampland, but these hazards were overcome through the endeavors of the hearty Irish immigrants who, despite heavy mortality due to malaria, stuck to the job and finished it. Finally on October 26, 1825, the venture which President Thomas Jefferson had denounced, declaring that "Talk of making a canal 350 miles through wilderness is little short of madness," was completed and

opened, connecting the waters of Lake Erie and the Hudson River. On November 4, 1825, the first canal boats to reach New York City using the Erie Canal, with Governor Clinton and other dignitaries aboard, arrived nine days after leaving Buffalo, New York.

Of the importance and magnitude of the Erie Canal there can be no doubt. At the time the Canal was completed in 1825, it was the longest canal in the world. It was Napoleon's maxim that rivers unite and mountains divide. Similarly, canals unite and link the reciprocal interests of communities. In the case of the Erie Canal its completion was destined to enrich and cement the Federal Union.

The construction of the Canal benefited agriculture and extended commerce and navigation. It shortened the time of travel from New York to Buffalo from six weeks to ten days. It gave impetus to immigration, being heavily used by the immigrants in reaching their new homes in the Midwest.

The importance of the contribution of Irish labor to its construction cannot be denied nor overlooked. The feeling may be that this has been overemphasized. Such a feeling may be reflected in the official publications such as New York Canal Laws or the Annual Reports of the Canal Commissioners issued between 1818 and 1825, in which only one direct reference is made

to the Irish laborers. This is in the Report for 1818, in which the Commissioners state that three Irishmen in the employ of Messrs. Pease, Mosely, and Dexter completed three rods of the Canal in five and one-half days. Their work included finishing the banks and tow-path "in four feet cutting." It took these men sixteen and one-half days to complete the excavation of two hundred forty-nine and one-third cubic yards, and at twelve and one-half cents per cubic yard, each of these workers earned $1.88 per day. This of course does not mean that there were only three Irishmen working on the Canal. As a system, three men were attached to a working team, and the workers could choose to be paid either per diem or by the amount of earth they excavated and cleared. As no other reference to the Irish or any other ethnic group appears in any of the Annual Reports of the Canal Commissioners it is possible to assume that the above reference to the three Irish laborers was meant to illustrate the efficacy of plough and scraper in excavation as opposed to spade and wheel-barrow, and also how well the Irishmen labored. We should also remember that Governor De Witt Clinton was a supporter of the Irish and enjoyed considerable support from them, and he courted their votes. Considering the fact that it was the custom of the Irish immigrants to choose to settle near the places of their employment it is possible to assume that the local contractors who were given

responsibility to carry out the Canal construction employed them in large numbers for this rather dirty job.

We should remember that between 1817 and 1825 there were many Irish as well as Germans living in the State of New York, and that the New York Census of 1845 shows the Irish comprising 10% to 15% of the population along the Erie Canal. One of the native Americans who worked with spade and wheelbarrow on the construction of the Canal was Mr. Benjamin F. Wade, who later became a distinguished Senator from Ohio. When a bill organizing a territorial government for Nebraska and Kansas was introduced in the Congress in 1854, opposition arose on the part of the Know-Nothing legislators who thought that the immigrants should not receive land there. Senator William H. Seward of New York in his lengthy speech pointed out Senator Wade's participation in the canal construction and emphasized that, had it not been for the immigrant labor which built its canal and railroad systems, America would not be so far advanced. And this is perhaps true, because the hard work of the immigrant labor force, of which the Irish constituted the major part, helped substantially to move America toward its present prosperity.

The writer is very grateful to Mr. Richard N. Wright, Secretary-General of the Canal Society of New York State, for

giving him valuable advice and suggestions. To his personal friend and former colleague, Dr. Thomas M. Pitkin, he is greatly indebted for reading the manuscript and for his wise counsel. To Mrs. Maxine Gresham go his thanks for her excellent typing of the manuscript.

George J. Svejda

CHAPTER I

CIRCUMSTANCES LEADING TO THE IDEA OF BUILDING THE ERIE CANAL

The word canal derives from the Latin canalis, meaning a channel, which in return is derived from the same root as the Sanskrit word khan, meaning "to dig." This word penetrated into other languages, and thus in English and French it became canal, in Italian canale, in German Schiffahrtskanal or Kanal, in Russian канал, in Czech průplav or kanál, to mention a few examples. A canal is a natural or artificial water route used for the transportation by ship of people or goods. The Egyptian Pharaohs built canals in the sandy wastelands of the Mideast at least 4,000 years ago; millions of years previous to this period there had been a natural channel across this narrow isthmus of land. However, the old canals of the Pharaohs became useless with neglect long ago.[1] During the 16th century, when trade within continental Europe was developing, this new element of the economy brought with it the necessity of establishing trade routes between neighboring states. The credit for the first utilization of canals

1. For early description of Egyptian and Middle East canals see particularly James Henry Breasted, *Ancient Records of Egypt.* Historical Documents from the Earliest Times to the Persian Conquest, Collected, Edited and Translated with Commentary by James Henry Breasted. Vol. I. (Chicago: The University of Chicago Press, 1906), pp. 149-150 and 291-292; Seton Lloyd, *Ruined Cities of Iraq.* (London: Oxford University Press, 1945), pp. 40-43; Bedřich Hrozný, *Ancient History of Western Asia, India and Crete.* (Prague: Orbis, n.d.), pp. 2 and 87; James Henry Breasted, *The Dawn of Conscience.* (New York and London: Charles Scribner's Sons, 1933), p. 97.

for the purpose of water transport in modern Europe belongs to the French, who during the 16th and 17th centuries built many canals for this purpose.[2]

The origin of canal building in what presently is the United States of America may well go back to "the canal cut across Long Island from Mecox Bay to Peconic Bay by Mongotucksee, the chief of the Montauk Indians, long before the white settlement of the country."[3]

From the time of the first English settlement in Jamestown, Virginia, in 1607, until the end of active hostilities of the American Revolution at Yorktown, Virginia, in 1781, there had been no large-scale canal construction in this country. Indeed the transportation system developed under the Colonial British administration revealed gross inadequacies at the time of the Revolution. It is true that there were lakes and rivers to serve the Colonial Americans, but it is also true that long distances very often separated the lakes and rivers from one another, and that these distances, as well as waterfalls, made a continuous water voyage hazardous when at all possible.

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2. For material on the French canal engineering see the excellent work of General William Barclay Parsons, *Engineers and Engineering in the Renaissance*. (Baltimore: The Williams & Wilkins Company, 1939), pp. 421-459; Also the work by Jérome de La Lande, *Des canaux de navigation, et spécialement du canal de Languedoc*. (Paris: Chez la veuve Desaint, 1778), *passim*, presents a good background on the quality of French canal engineering of the same period.

3. Robert Payne, *The Canal Builders: The Story of Canal Engineers Through the Ages*. (New York: The Macmillan Company, 1959), p. 139.

The importance of rivers and lakes was realized by many prominent Americans; George Washington was so fascinated by them that he wrote in his letter of October 13, 1783, to the Marquis de Chastellux, "Prompted by these actual observations, I could not help taking a more contemplative and extensive view of the vast inland navigation of these United States, and could not but be struck with the immense diffusion and importance of it; and with the goodness of that Providence which dealt his favours to us with so profuse a hand. Would to God we may have wisdom enough to improve them."[4]

Washington's interest in canals is also evident from his letter of November 3, 1784, to Jacob Read, the South Carolina delegate to the Continental Congress, in which he said: "Extend the inland navigation to the eastern waters, communicate them as near as possible (by excellent roads) with those which run to the westward. Open these to the Ohio and such others as extend from Ohio towards Lake Erie, and we shall not only draw the produce of the western settlers, but the fur and peltry trades of the lakes also, to our ports (being the nearest and easiest of transpor-

4. John Marshall, *The Life of George Washington, Commander in Chief of the American Forces, During the War Which Established the Independence of His Country, and First President of the United States.* Compiled Under the Inspection of the Honourable Bushrod Washington, from Original Papers Bequeathed to him by his Deceased Relative, and now in Possession of the Author To Which is Prefixed, An Introduction, Containing a Compendious View of the Colonies Planted by the English on the Continent of North America, from their Settlement to the Commencement of that War Which Terminated in Their Independence. Vol. V. (Philadelphia: Printed and Published by C.P. Wayne, 1807), pp. 10-11.

tation) to the amazing increase of our exports, while we bind these people to a chain which can never be broken."[5]

Imbued with his own enthusiasm to make the Potomac navigable to Cumberland, Washington in 1784 became the President of the Potomac Canal Company and vainly attempted to build a canal system connecting the Potomac with the Ohio through the difficult mountain passes.[6]

By the 1790s there were underway several important canal projects and river improvements in the seaboard States. One of them was the Santee Canal of South Carolina, connecting the Santee River with the Cooper River near Charleston. It was built between 1793 and 1800 under the supervision of the Swedish engineer Christian Senf, who had arrived in this country with the Hessian troops of General John Burgoyne, had fallen into American hands with the surrender at Saratoga, and during the latter part of the war had served as an engineer with the South Carolina militia.[7]

The Middlesex Canal of Massachusetts was another improvement scheme that was started in 1790 and completed fourteen years later, traversing the northeastern corner of the State, from tidewater about 27 1/4 miles inland to the present Chelmsford.[8]

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5. Payne, *op. cit.*, p. 141.
6. Ibid., pp. 157-158.
7. Ibid., pp. 141-142.
8. Ibid., p. 142.

Still another was the Little Falls Canal on the Mohawk River in New York, which was begun the same year as the Santee Canal and which took two years to build.[9]

All of these early projects were designed to serve local needs, but at the same time gave this country its very first practical experience in canal construction.

By 1790 the importance of river improvements and canal projects had also been realized more fully in the State of New York. Up to 1790 the means of inland water transportation in the State had consisted only of the natural streams, and little effort had been made to introduce artificial improvements into them.

The period from 1791 to 1807 was the era of the Western Inland Lock Navigation Company's canals, during which this private enterprise improved streams and also used them for navigation, although only to a limited extent. Specifically the Western Inland Lock Navigation Company projects consisted of widening the Mohawk and building locks at Little Falls and Rome, New York.[10]

On February 4, 1808, a Resolution was adopted in the New York House of Assembly calling for the appointment of a joint committee of the Senate and Assembly of the State of

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9. *Loc. cit.*

10. Blake McKelvey, *Rochester the Water-Power City 1812-1854.* (Cambridge: Harvard University Press, 1945), p. 63.

New York "to take into consideration the propriety of exploring and causing an accurate survey to be made, of the most eligible and direct route for a canal, to open a communication between the tide waters of the Hudson river and Lake Erie, to the end that congress may be enabled to appropriate such as may be necessary to the accomplishment of that great national object."[11]

After the Resolution was concurred in by the Senate on the following day, a Joint Committee was appointed, which reported on March 21, 1808, "that speedy measures ought to be adopted on the part of this state for ascertaining the best route of communication by canals between the tide waters of the Hudson river, and the great western lakes, and for making accurate surveys and charts to be transmitted to the President of the United States."[12] After the Resolution was adopted in the House of Assembly and concurred in by the Senate on April 6, 1808,[13] the New York State Legislature on April 11, 1808, passed a law authorizing the Treasurer to pay to the Surveyor-General a

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11. *Laws of the State of New York, in Relation to the Erie and Champlain Canals, together with the Annual Reports of the Canal Commissioners, and other Documents, requisite for a complete Official History of Those Works. Also, Correct Maps Delineating the Routes of the Erie and Champlain Canals, and designating the Lands through which they pass.* Published in pursuance of the "Act for Re-Printing the Laws and Other Official Documents, relating to the Erie and Champlain Canals," Passed February 8, 1825, Vol. I. (Albany: Published by Authority of the State, E. and E. Hosford, Printers, 1825), pp. 7-8. Hereinafter cited as *New York Canal Laws*, Vol. I.

12. Ibid., p. 9.

13. Ibid., pp. 10-11.

sum of not exceeding six hundred dollars for an exploration and survey of possible routes of communication between Lake Erie and the Hudson River.[14] On June 11, 1808, Surveyor General Simeon De Witt appointed James Geddes of Onondaga to carry out this survey.[15] Soon afterward Geddes entered upon his duties, and on January 20, 1809, he presented to De Witt a favorable report on an inland route.[16]

By virtue of a Resolution passed on March 15, 1810, by both branches of the New York State Legislature, Gouverneur Morris, Stephen Van Rensselaer, De Witt Clinton, Simeon De Witt, William North, Thomas Eddy, and Peter B. Porter were appointed Commissioners "for exploring the whole route, examining the present condition of the said navigation, and considering what further improvement ought to be made therein."[17] Subsequently, a law was passed on April 5, 1810, authorizing the Treasurer to pay to the Commissioners a sum not exceeding $3,000 to implement the Resolution passed on March 15, 1810.[18]

The Commissioners studied the various routes and their advantages and disadvantages, and on March 2, 1811, submitted

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14. Ibid., p. 11.
15. Ibid., pp. 11-12.
16. Ibid., pp. 12-32.
17. Ibid., pp. 46-47.
18. Ibid., p. 47.

a favorable report on the advisability of the canal undertaking.[19] Their report resulted in the passage of a law on April 8, 1811, whose preamble stated that "a communication by means of a canal navigation between the great lakes and Hudson's river will encourage agriculture, promote commerce and manufactures, facilitate a free and general intercourse between parts of the United States, and tend to the aggrandizement and prosperity of the country, and consolidate and strengthen the union." Furthermore the Commissioners received special powers to implement the proposed inland navigation, such as power to buy lands through which navigation might be carried, and to employ engineers, surveyors and other people as they should deem necessary to fulfill the obligations imposed on them by the Act of April 8, 1811, etc.[20]

On March 14, 1812, the Commissioners submitted to the Legislature another report emphasizing the advantages of an interior route between Lake Erie and the Hudson River; in answer to their opponents who favored the old route by Lake Ontario, they quoted in their support a statement by Mr. Weston, "whose abilities as an engineer . . . are unquestioned."[21]

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19. Ibid., pp. 48-69.
20. Ibid., pp. 70-71.
21. Ibid., pp. 71-87; Cf. also *Report of the Commissioners Appointed by an Act of the Legislature of the State of New-York, Entitled, "An Act to provide for the Improvement of the Internal Navigation of the State," passed April 8th, 1811.* For the consideration of all matters relating to the said inland navigation. (Albany: Printed by S. Southwick, 1812), pp. 3-21.

Having received full support and strong recommendations in favor of their project from Mr. Weston, Mr. Gouverneur Morris and the other Commissioners, the canal planners now found that a canal with a uniform descent from Lake Erie would be 130 feet above the outlet of the Cayuga Lake, and therefore that the expense of an embankment would be far above their first estimate. Consequently the Commissioners admitted that their plan could not be realized as it stood, and "that it would become necessary to descend eighty or ninety feet, so as to cross the Cayuga, by an embankment of moderate height."[22]

The War of 1812, known in history as the "Terrapin War," delayed the plans for construction of the canal, and Federal assistance was vetoed by President James Madison. In addition new doubters and obstructionists were rising in opposition to the project. During the summer of 1813, the Commissioners suspended their surveys because of military operations which were not "favourable to internal improvement."[23]

The revival of the plan for the construction of the Canal came in 1815; the War was over and the need for internal improvement had again become evident. New settlers were beginning to

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22. *Facts and Observations in Relation to the Origin and Completion of the Erie Canal.* Second Edition. (Providence: F. Y. Carlile and H. H. Brown, 1827), p. 13.

23. *New York Canal Laws*, Vol. I, p. 103.

move into upper New York State, and with the steadily growing strength of these new interior settlements there came also new impetus for the idea of an Erie Canal.

CHAPTER II

THE BEGINNING OF THE GREAT WORK

During the months of February and March of 1816 the New York State Legislature received numerous petitions and memorials from citizens asking for the improvement of internal navigation in the State of New York,[1] and a law was passed on April 17, 1816, providing for the desired improvements. In addition, Messrs. Stephen Van Rensselaer, De Witt Clinton, Samuel Young, Joseph Ellicott, and Myron Holle were appointed Commissioners, while the names of Gouverneur Morris, Simeon De Witt, William North, Thomas Eddy, and Peter B. Porter, who had previously been Commissioners, were omitted. The law also declared "that the commissioners shall choose one of their number, to be president of their board, and shall be allowed and paid such salary as the said commissioners shall deem proper and reasonable: And the president of the said board of commissioners, shall have power to call a meeting of the same whenever in his opinion, the public interests require it." In addition the law provided $20,000 to defray expenses incurred by the Commissioners, such as surveys, etc.[2]

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1. Ibid., pp. 119-141.
2. Ibid., pp. 184-186.

Shortly afterward the newly appointed Commissioners selected De Witt Clinton as their President.[3]

During the meeting held in New York on May 17, 1816, the Commissioners decided to divide the Erie Canal into three sections, with an engineer for each section "assisted by a surveyor, and a competent number of hands." On July 15, 1816, the Commissioners met again at Utica, where they determined that the dimensions of the Erie Canal should be 40 feet wide on the water surface, twenty-eight feet wide at the bottom and four feet in depth of water. The length of a lock was to be ninety feet, and its width twelve feet in the clear.[4] On February 17, 1817, the Commissioners submitted to the Assembly its report giving conclusive evidence in favor of the proposed canals.[5]

On the strength of the report of the Canal Commissioners the Legislature of the State of New York on April 15, 1817, passed "An act respecting navigable communications between the Great Western and Northern Lakes and the Atlantic Ocean" which declared full confidence that the Congress of the United States as well as the States would share equal interest with the State of New York in the commencement, prosecution and completion of these important

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3. *Facts and Observations in Relation to the Origin and Completion of the Erie Canal*, p. 15.

4. *Report of the Commissioners of the State of New-York, on the Canals from Lake Erie to the Hudson River, and from Lake Champlain to the Same.* Presented to the Legislature, 17th February, 1817. (Albany: Printed by J. Buel, Printer to the State, 1817), pp. 4-5.

5. Ibid., pp. 3-90.

works and would contribute their full proportion of the expense. The Act also emphasized that the Commissioners appointed by the Act of April 17, 1816, were authorized and empowered to commence making the said canals "by opening communications by canals and locks between the Mohawk and Seneca rivers, and between Lake Champlain and the Hudson river."[6]

In April of 1817 Clinton was elected Governor of New York State.

The Commissioners, as soon as the season permitted, proceeded to the execution of their duties. With the passage of the law of April 15, 1817, authorizing construction between the Mohawk and Seneca Rivers, they began to take measures, and on July 4, 1817, work on the Erie Canal was commenced with the excavation at Rome.[7]

Thomas Jefferson, who as early as 1809 had stated that the "talk of making a canal of 350 miles through the wilderness . . . is little short of madness,"[8] began to see things differently. In a letter of June 13, 1817, to his distinguished German friend, Baron Alexander von Humboldt, Jefferson expressed satisfaction

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6. *Laws of the State of New-York, Passed at the Fortieth Session of the Legislature, Begun and Held at the City of Albany, the Fifth Day of November, 1816.* (Albany: Printed by J. Buel, Printer to the State, 1817), pp. 301-306.

7. *New York Canal Laws*, Vol. I, pp. 367 and 371.

8. Jefferson's doubts in 1809 as to the feasibility of the project are detailed and explained in Joshua Forman's letter of October 13, 1828, to David Hosack. Cf. for this David Hosack, *Memoir of De Witt Clinton: With an Appendix, Containing Numerous Documents, Illustrative of the Principal Events of His Life.* (New York: Printed by J. Seymour, 1829), p. 347.

with the project, writing: "...The most gigantic undertaking yet pronounced, is that of New York, for drawing the waters of Lake Erie into the Hudson. The distance is 353 miles, and the height to be surmounted 661 feet. The expense will be great, but its effect incalculably powerful in favor of the Atlantic States."[9]

9. *The Writings of Thomas Jefferson.* Collected and Edited by Paul Leicester Ford. Vol. X: 1816-1826. (New York and London: G.P. Putnam's Sons, 1899), p. 89.

CHAPTER III

THE DEMAND FOR FOREIGN LABOR IN AMERICA

Immigration to the United States between 1793 and 1815 came almost to a standstill due to the conditions in Europe caused by the French Revolution, and also because of the Federalist policy, which had lengthened the residence period required for citizenship to fourteen years. The conduct of the War of 1812 by the Republican administration, and the Federalist opposition, which resulted in the Hartford Convention, cut off immigration virtually completely. The revival came after 1815. With the defeat of Napoleon came the settlement of the stormy European situation at the Congress of Vienna. This settlement opened the way for a new European migration to the New World, which became the beginning of the greatest movement of population in human history. The appeal of America for Europe's poor and disinherited was enormous and powerful. The New York Irish weekly paper *The Shamrock* described the arrival of immigrants in New York as follows:

> Emigrants continue to arrive in great numbers from almost every part of Europe. Every arrival is an accession of strength and wealth to the United States. As long as thousands, and tens of thousands, and hundreds of thousands of acres of land remain uncultivated, so long will it be the interest of the

> people of America to encourage the residence of foreigners; so long as manufactures are capable of further and useful improvements so long will it be the interest of the citizens of the United States to encourage the foreign mechanic to emigrate to America; so long as necessary canals, roads, and bridges, remain unfinished or unattempted, so long must we feel the necessity of increasing the population by adding thereto the laborious and scientific foreigners. Then let emigration be encouraged, and this most solid of all riches flow in without interruption. The emigrants are chiefly from Ireland, and it behoves Irishmen residing in America, to be active in procuring them employment, by giving information where labourers or mechanics are most likely to meet good wages and steady employment; also, information of the state of markets, quality and price of lands, salubrity of climate, etc. All letters on these subjects, (post paid) directed to the editor of this paper, will be attended to, and every advice and instruction communicated to the stranger without charge.[1]

One letter from Ithaca, New York, to the *Shamrock*, stated that "Several of those persons (emigrants) may find advantageous employment in this place, as labourers are much wanted."[2]

By the summer of 1816, in New York City alone, it was observed that there were "twelve thousand Irish, and the number of all other foreigners may probably be as many."[3]

However, the majority of immigrants who arrived here were of peasant stock, and the peasant immigrant, upon landing in the New World, found it exceedingly difficult to find work

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1. *The Shamrock*, August 17, 1816, p. 364.
2. Ibid., December 7, 1816, p. 381.
3. Ibid., August 17, 1816, p. 365.

because he often lacked the necessary skills.

Since his labor was not needed in the city, and since he was on the verge of destitution, this immigrant turned toward the rural areas for employment. Without quibbling over terms or inquiring too closely as to working conditions, he sought work constructing canals, railroads, and highways.

To add to the miserable life at the construction camp -- low wages, poor living conditions, purchases through the company store -- was the fact that the immigrant could not complain to the canal company, since an intermediary had hired him. And since the cost of bringing the worker to the sites was considered a debt in many States, the worker had to complete his time for the contractor until he cleared the debt. Only in 1907 did the Federal Government construe this practice as peonage.

Work in the cities, however, did not provide adequate security. The worker had to worry about sickness, injury, and the transitory nature of his employment. Consequently, little pride in their efforts in building the Nation developed among these workers.

To better their lot the immigrants looked to their own. Leaders soon came to the fore. The "boss" or "padrone" at first voiced the men's grievances; later the "padrone" would conduct negotiations with the employers, maintain his "men," and make a profit for his efforts. In effect the "boss"

became a type of "subcontractor, built up new gangs on his own initiative, and often also recruited members from his countrymen abroad." This system seemed "natural" for those who had been farmers in the "old country."

The padrone system, however, left much to be desired, for some padrones were capable of exploiting the immigrant and neglecting the relationships that existed between worker and padrone abroad. Generally, the immigrant regarded construction work as no more than a "makeshift," just as they considered migratory labor in Europe.[4]

The influx of Irish immigrants during 1816 was uncommonly great and it was directed primarily to a single place of debarkation, New York City. Indeed, New York was the place where, with the exception of a few hundreds, the body of Irish immigrants landed.

De Witt Clinton came to be known in New York as the protector of the Irish immigrants.[5]

Since the Irish laborers had had prior experience in building canals in the British Isles and France, and since they could work hard under difficult living conditions for low pay, their labor was much in demand in America.[6]

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4. Oscar Handlin, *The Uprooted.* (Boston: Little, Brown, and Company, 1953), pp. 66-70.

5. Alvin Kass, *Politics in New York State, 1800-1830.* (Syracuse, N.Y.: Syracuse University Press, 1965), p. 86.

6. Richard J. Purcell, "Immigration to the Canal Era" in Alexander C. Flick, Ed., *History of the State of New York.* Vol. 7: *Modern Party Battles.* (New York: Columbia University Press, 1935), pp. 25-26.

The Irishman, until the latter half of the 19th century, provided most of the cheap, unskilled labor for building America's roads, canals, and railroads. After he had climbed a few rungs of the economic and social ladder, he became a "boss" over other immigrant groups. Sections of the National Road were constructed primarily by Irish laborers, who received six dollars a month. It is known that an Irish priest celebrated Mass and ministered to the spiritual needs of the workers in 1839 in northwestern Ohio.

During the canal-building period, contractors imported many workers by advertising in the Catholic and local papers in Ireland. To keep wages down, employers would call for more men than they actually needed. Many were eager to work for seventy-five cents to a dollar and a half a day and even for lower wages once the labor supply increased. Whiskey rations were often part of the contract. However, much of the Irish reputation for brawling and drinking stemmed not only from these rations, but also from the miserable working conditions and from the carrying over to the New World of quarrels among rival gangs from Ireland.[7]

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7. Carl Wittke, *The Irish in America.* (Baton Rouge: Louisiana State University Press, 1956), pp. 32-33.

CHAPTER IV

THE PROGRESS OF THE CANAL CONSTRUCTION AND THE IRISH WORKMEN ON THE ERIE CANAL

The Canal Commissioners took measures for the prosecution of the great enterprise with a zeal and spirit from which only the most happy result could have been anticipated. No opposition from local or political prejudices was able to turn the Commissioners from their purpose.

As indicated above, the construction of the Canal began with an impressive ceremony at Rome on July 4, 1817.[1]

At first the Commissioners planned to supply the State with the needed tools. After a great deal of thought, however, it was decided to be more economical and let the work in small sections to contractors. The contractors were to provide their own tools for excavation and embankment, and were to be reimbursed for their services at a set price per cubic yard.[2] The amounts of the contracts varied in length from 40 rods to three miles. One reason the Commissioners gave for letting out the Canal in small sections was that it would enable men of more

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1. See *Supra*, p. 13.

2. *Report of the Commissioners of the State of New-York, on the Canals from Lake Erie to the Hudson River, and from Lake Champlain to the Same.* Presented to the Legislature, January 31st, 1818. (Albany: Printed by J. Buel, Printer to the State, 1818), pp. 4-5.

modest means to do this work if they could obtain the necessary backing.[3] Public improvement work was just beginning, and for this reason contracting, as we know it today, was unheard-of. This new method of letting the work out in small portions and advancing money with which to buy tools, enabled many men in various occupations to strive to acquire the contracts.[4]

The construction of the Erie Canal was a blessing to the people living in that area. Money was not plentiful and the means to procure it were limited, so that thousands of people were eager to seize the opportunity to obtain the contracts on the Canal.

The problem of building the Canal was complicated by the question of selection of engineers as well as labor force. As early as March 8, 1814, the Commissioners reported to the New York State Assembly that they had made an inquiry and wanted to appoint an English engineer to commence the surveys for the Erie Canal, but that he was unable to come because of our conflict with Great Britain.[5] Those engineers employed were native Americans except for two, one French and one Irish, who were employed for a year to do some preliminary examination.[6] By

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3. Ibid., p. 9.

4. Noble E. Whitford, *History of the Canal System of the State of New York Together With Brief Histories of the Canals of the United States and Canada.* Vol. I. (Albany: Brandow Printing Company, 1906), p. 87.

5. *New York Canal Laws*, Vol. I, pp. 102-103.

6. Ibid., p. 107.

March 8, 1816, the Commissioners had expressed their preference for American engineers over those from Europe because the job required an experienced engineer and according to the Commissioners "There are few persons of this description in Europe."[7] This was not, of course, true, and it seems rather that in the immediate commencement and vigorous prosecution of this great national work the Commissioners decided to turn to its own State's citizens.

In its meeting held in New York on May 17, 1817, the Commissioners agreed to divide the Erie Canal into three sections and the Champlain Canal into one. They also agreed to appoint three engineers for the Erie and one for the Champlain canals, each engineer to be assisted by a surveyor with a competent number of hands.[8]

The three planned sections of the Canal were the eastern, extending from Albany to Utica, 107 miles; the middle, from Utica to Montezuma, 96 miles; and the western, from Montezuma to Buffalo, 160 miles.[9]

Benjamin Wright became the chief engineer and surveyor of the Erie Canal.

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7. Ibid., p. 117.

8. See *Supra*, p. 12. The Champlain Canal commences in the Hudson River at Waterford and stretches to the north to Lake Champlain at Whitehall. Its length is 61 miles.

9. *Niles' Weekly Register*, Vol. XXV, No. 632 (October 25, 1823), p. 128.

The operation between Rome and Utica was directed by Isaac Briggs, "an eminent mathematician."[10]

Between July 4, 1817, and January 31, 1818, fifteen miles were considered as completed of the contracted distance of about fifty-eight miles.[11]

To prevent any possible shortage of labor, a legislative provision for the use of prison labor was enacted on April 15, 1817, when an Act was passed relative to the work of prisoners on the Erie and Champlain canals. This Act gave the Canal Commissioners authority to contract with any individuals or companies for the services of those committed to the State prison, to work on the canals. Some of the regulations imposed upon the individuals or companies were: they were to post adequate bonds, which bonds were to be approved by the Canal Commissioners; the duration of tenure was to be not less than six months; they were to assume complete financial responsibility for the convicts. The Act further stated that if a prisoner escaped while so employed, he was to be banished from the State on pain of death should he return at a later date.[12] This would only indicate that there might have been a labor shortage, the canal work not being sought after by the "native" Americans because it was difficult, dangerous, and perhaps unsuitable to their dignity.

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10. *New York Canal Laws*, Vol. I, p. 370.

11. *Report of the Commissioners of the State of New-York, on the Canals from Lake Erie to the Hudson River, and from Lake Champlain to the Same.* Presented to the Legislature, January 31st, 1818. (Albany: Printed by J. Buel, Printer to the State, 1818), pp. 11-12.

12. *New York Canal Laws*, Vol. I, p. 365.

In building the canal many hardships confronted the laborers: contractors who encouraged fights among the workers to avoid paying them; loss of pay on rainy days but with charges for lodging; malaria; "canal fever"; cave-ins, and tuberculosis. In spite of all these difficulties, many immigrants and urban workers were willing to accept such jobs and ignored warnings from the Irish-American papers that urged them to shun canal and railroad work because they were "the ruin of thousands of our poor people" who were considered "like slaves."[13]

According to the Annual Report of the Canal Commissioners dated January 25, 1819, a very small number of the contractors were aliens who had just migrated to the United States, the greater portion of contractors being native farmers, mechanics, merchants and professional men who lived in the vicinity of the canal route. The report pointed out that "great numbers of wealthy and respectable citizens sought contracts" and that "Many applications, for every section, were always made immediately after, and often before, the returns of the engineer had been received, so as to render it proper to let them out." In addition the report stated that three-quarters of the laborers were born in that area.[14] Specifically the report said that "A very few of the contractors are foreigners, who have recently arrived in this country . . . and three-fourths of all the laborers were

13. Wittke, *op. cit.*, p. 34.

14. *Annual Report of the Canal Commissioners, Communicated to the Legislature, Jan. 25, 1819.* (Albany: Printed by J. Buel, Printer to the State, 1819), p. 10.

born among us."[15]

It would seem that immigrants played a much more important part in the construction of the Erie Canal as contractors as well as labor than the above report indicates. For example, among the people who promoted the execution of canal navigation from Lake Erie to the Hudson was John Greig, who donated to the people of the State of New York three thousand acres of land lying in the county of Steuben, west of the Seneca River.[16] And John Greig, this generous contributor, was described by a man who presumably was De Witt Clinton as "an emigrant from Scotland."[17] On the other hand, why should the New York State Legislature pass a legislative provision regarding the use of prison labor on the canals had it not been for a shortage of workers? And since the majority of the "native" Americans considered canal construction, and later on railroad construction, as dirty and dishonorable work, it seems logical to presume that immigrants were used for this work, and most of the immigrants used for such work at that time were Irish.

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15. Ibid.

16. *New York Canal Laws*, Vol. I, p. 285.

17. *Letters on the Natural History and Internal Resources of the State of New-York*. By Hibernicus. (New York: Sold by E. Bliss & E. White, 1822), p. 55. This particular letter originally appeared as Letter No. XII in *The New-York Statesman* on Tuesday, July 18, 1820, p. 3. "Hibernicus" was one of the several pseudonyms which De Witt Clinton frequently used.

The digging of the Erie Canal was, after the Schuylkill River Canal project, described below, the second major construction work in America which can be credited to the Irish, and from that time on they were considered indispensable. Except for the early Southern jobs, it can be said that Irishmen were responsible for digging all the American canals constructed before the Civil War. Accounts of a conflict they had with the Pennsylvania German residents of Myerstown, Pa., attest to the fact that they had labored on the unsuccessful Schuylkill and Susquehanna canal in 1783.[18]

In the 1818-1825 Annual Reports of the Canal Commissioners, only one direct reference is made to Irish laborers. In their report for 1818 the Commissioners state that three Irishmen in the employ of Messrs. Pease, Mosely, and Dexter completed three rods of the Canal in five and one-half days. Each man was apparently equipped with a plow and a scraper. Their work included finishing the banks and tow-path "in four feet cutting." It took these men sixteen and one-half days to complete the excavation of two hundred forty-nine and one-third cubic yards. At twelve and one-half cents per cubic yard each worker earned

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18. Alvin F. Harlow, *Old Towpaths. The Story of the American Canal Era.* (New York and London: D. Appleton and Co., 1926), p. 54.

$1.88 per day.[19] This, of course, does not mean that there were only three Irishmen working on the Canal. As a system, three men were attached to a working team, and the workers could choose to be paid either per diem or by the amount of earth they excavated and cleared.[20] As no other references to the Irish or any other ethnic group appear in any of the Annual Reports of the Canal Commissioners, it is possible to assume that the above reference to the three Irish laborers was meant to illustrate the efficacy of plough and scraper in excavation as opposed to spade and wheel-barrow, and also how well the Irish workmen labored.

The New York census of 1845 shows that the Irish comprised 10% to 15% of the population along the Erie Canal. By colonizing there and by digging the Canal, they were responsible for helping to make New York the first State of the land.[21]

It was the custom of the Irish immigrants to choose to settle near the places of their employment. With the "native" Americans avoiding difficult conditions in heavy canal work, here

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19. *Report of the Commissioners of the State of New-York, on the Canals from Lake Erie to the Hudson River, and from Lake Champlain to the Same.* Presented to the Legislature, January 31st, 1818. (Albany: Printed by J. Buel, Printer to the State, 1818), p. 13.

20. Samuel Hopkins Adams, *The Erie Canal.* (New York: Random House, 1953), p. 48.

21. William Forbes Adams, *Ireland and Irish Emigration to the New World from 1815 to the Famine.* (New York: Russell & Russell, 1967), p. 352.

was a chance for the Irish to enter a field in their newly adopted country which other people avoided. And indeed the Irish labor filled this need.

"Yankee ingenuity and Hibernian brawn" was often descriptive of how the canals were built. Irish labor was attracted to America in many instances by deceptive advertising: "meat three times a day, plenty of bread and vegetables, with a reasonable allowance of liquor, and eight, ten, or twelve dollars a month for wages." In effect workers became indentured servants before leaving Europe, for they signed contracts in Ireland. Disorders and insubordination occurred frequently in the labor camps. Some ran away from their contracts, and fights broke out between workers from different counties in Ireland.[22]

The Irish canal diggers appeared to the "native" American as "wild Irish" or "Irish nigger" because they would stoop to do pick-and-shovel work, drank much, and waged "county" fights. Since they suffered many abuses at the hands of contractors and even Irish subcontractors, they joined secret societies which churchmen condemned. However, "hundreds and hundreds of single men in unpoliced regions were guilty of no sabotage or destruction of property."[23]

22. Wittke, *op. cit.*, pp. 35-36.
23. Purcell, *op. cit.*, p. 26.

Missionary priests often ministered to the workers, who led a violent social life resulting in part from drinking. The missionary priest in the workers' midst was a social worker as well as a minister. The laborer would turn to the priest for advice and for resolution of difficulties. Often the workers would come many miles for the spiritual strength of the Mass or Confessional. It was not uncommon for the laborers to help the priests build churches and charitable asylums.[24] It was observed that "At Mount Morris, three hundred Irish Catholics working on the Canal, were visited by Rev. Mark Murphy, and, to suit their convenience, Divine Service was held near Brushville. Judge Carroll donated a piece of ground, upon which was built a poor chapel, or rather a shanty, where the pious Catholics met to adore their God, and to practice their holy religion."[25]

Thus their faith helped the Irish workmen through their difficult life.

Similarly, their living conditions were very poor. It was not unusual for an entire Irish laboring family to live in one small wooden shack which measured 14 feet by 10 feet. Captain

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24. Ibid., p. 27.

25. John Timon, *Missions in Western New York, and Church History of the Diocese of Buffalo, by Bishop of Buffalo.* (Buffalo: Catholic Sentinel Print, 1862), p. 220.

Frederick Marryat, who inspected one such shack in the late 1830s, discovered that the whole family, husband, wife, and children, slept in one bed. The bed did not have a mattress or even straw, and under it rested a pig.[26]

The outside provisions for the labor were also primitive. It was reported that the hollow trunk of one tree having a girth of thirty feet allowed one enterpriser to convert it into a grocery store.[27]

But in spite of such difficulties the work on the Canal progressed. By 1818 the Erie Canal had gained in public favor. Attempts were made to destroy Governor Clinton politically by it, and if it had failed he would have been destroyed, as the whole blame would have been attached to him. He and the rest of the Canal Commissioners, however, accepted the responsibility for the project.[28]

Through 1818 the construction of the Canal was moving steadily forward with between two and three thousand men, together "with half as many horses and cattle, and a considerable variety of

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26. William J. Petersen, *Steamboating on the Upper Mississippi*. (Iowa City, Iowa: The State Historical Society of Iowa, 1968), p. 317.

27. Madeline Sadler Waggoner, *The Long Haul West. The Great Canal Era, 1817-1850.* (New York: G.P. Putnam's Sons, 1958), p. 72.

28. *The New-York Statesman* (Albany, N.Y.), July 7, 1820, p. 3.

mechanical inventions."[29] Irish immigrants constituted a quarter of the workers.[30]

On April 7, 1819, an Act concerning the Great Western and Northern Canals was passed. This Act authorized De Witt Clinton to open communications, by canals and locks, between the Seneca River and Lake Erie and between the termination of the canal on the Mohawk River and the Hudson River. In this way the Commissioners received authority to build and complete the entire line of canal spreading from Lake Erie to the Hudson River. This Act also stated that anyone who worked on either the Erie or Champlain Canals would not have to do militia duty in New York State, except in instances of insurrection or invasion which might take place while the worker was so employed. The certificate of one of the Canal Commissioners or contractors who employed the men subject to military duty was sufficient proof of such engagement.[31] It was evident that in most instances the workers were not properly armed or equipped to be of any value on the parade ground, and it was estimated that during the previous (1818) season, approximately $20,000 worth of performance was lost due to militia interruptions.[32]

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29. *Annual Report of the Canal Commissioners, Communicated to the Legislature, Jan. 25, 1819.* (Albany: Printed by J. Buel, Printer to the State, 1819), p. 11.

30. Adams, *The Erie Canal,* p. 60.

31. *New York Canal Laws,* Vol. I, pp. 433-435.

32. *Annual Report of the Canal Commissioners, Communicated to the Legislature, Jan. 25, 1819.* (Albany: Printed by J. Buel, Printer to the State, 1819), p. 30.

CHAPTER V.

WORKING CONDITIONS ON THE ERIE CANAL

The Irish took well to their new country and even to their hardships. The pay was relatively good, and there was warm sleeping space on the shanty floor and roast beef twice a day as well as a swig of whiskey every hour.

The contractor, as well, benefited from the arrangement. Though he paid for shanties that could accommodate forty laborers each, equipment, horses, food and whiskey, he received one shilling per yard excavated or $2,500 for each mile. The Canal Commissioners would print scrip, in the form of 100 certificates, if more cash was needed. It was common for a contractor to be set up with a $2,000 loan, and he had the privilege of borrowing $200 to $1,000 more for winter food supplies, which could then be transported by wagon since the ground was hard. "Under this system, during the year of 1818 between two and three thousand laborers were at work on the Erie Canal -- with a horse for every second man -- digging and grubbing through what they called 'the smiling country,' the future Syracuse and Rochester districts."[1]

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1. Waggoner, *op. cit.*, pp. 70-71.

Between the Mohawk and Seneca Rivers a great portion of the canal line passes through swamps and marshes. These are the Montezuma, also called the Cayuga Marshes, near Syracuse. The Commissioners, not knowing anything about the Cayuga Marshes, sent Canvass White to investigate. He presented them with the problem of how one could build a canal over an area that was neither land nor water. The Seneca River that drained the marsh could be three feet below the level of the swamp in dry weather and two feet above when the spring rains came.[2]

Both human and natural obstacles presented themselves to the laborers on these Montezuma Marshes. The notorious Doane-Tombleson gang fought with guns against encroachments into their marshy hideout and extracted contributions from the bogtrotters.[3]

Though local labor avoided the swamp, the Irish eagerly tackled the job under James Geddes. After waiting three weeks for the water to go down, the Irish began work in June 1819, but the embankments they would build one day would dissolve into mud overnight. Even the contractor began to wish that he had never heard of "Erie." He planned to sink spiles or spikes

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2. Adams, *The Erie Canal*, pp. 76-77.
3. Waggoner, *op. cit.*, p. 73.

to retain the enbankment, but marl, earth which would take a spike, was not always present; rather quicksand was often under the water.[4]

Working wet earth imposed peculiar hardships on the laborers: the earth was heavier, it would run; clothes, horses, and cattle failed sooner; furthermore workers succumbed to sickness more quickly and required higher wages. Some contractors were not sensitive to the importance of good draining.[5]

Sickness retarded particularly the completion of the Middle Sector. The Irish liked neither the quicksand nor the suffering which resulted from standing in water above their knees, nor the mosquitoes and leeches. They would turn their misery into a joke by singing, for example:

> We are digging the Ditch through the mire;
> Through the mire right up to our neck, by Heck!
> And the mud is our principal hire,
> In our pants, in our boots, down our neck, by Heck!
> In our pants, in our boots, down our neck.[6]

A communication received by the Historian of Oneida County from Dr. O. P. Hubbard, of Rome, stated that during the summer in the Montezuma marshes the untamed bogtrotters from Western Ireland carved a path through the trees the width of the Canal.

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4. Adams, *op. cit.*, pp. 77-83.
5. *The Albany Gazette*, March 2, 1820, p. 1.
6. Adams, *op. cit.*, p. 83.

They were compelled to wear only flannel shirts and slouch caps, and labored in knee-deep mire.[7]

By July of 1819 morale had dropped to a low. Even Montezuma "necklaces" or smudge-buckets hung around the neck to ward off insects were not successful, for the men spent more time coughing than working.[8]

This swampland produced many problems. Unhealthy conditions impeded work between Salina and the Seneca River. Mosquitoes carrying the dreaded "ague" fever sickened a thousand workers and many died.[9] The strain of hard work, disease, and poor living conditions caused the workers to have short tempers. Frequently fights occurred. Even sick workers wished other incapacitated ones, death. "But most of all you wished it for the damned Old Erie. And when at long last you reached again for your shovel, it was only because you were as miserable idle as you were when working."[10]

In their 1819 Annual Report the Commissioners stated that between the middle of July and the first of October 1819, about one thousand workers on the Canal from Salina to the Seneca River were incapacitated by illness due to the excessive and

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7. Harlow, *op. cit.*, p. 54.
8. Adams, *op. cit.*, pp. 85-91.
9. Harlow, *op. cit.*, p. 53.
10. Waggoner, *op. cit.*, p. 74.

prolonged heat. For this reason some jobs had to be completely abandoned for several weeks.[11]

But through the efforts of Governor Clinton and the Canal Commissioners, work on the Canal was soon resumed. By October of 1819 the whole middle section of the Canal, ninety-four miles in length, between Utica and the Seneca River was completed, including the lateral canal at Salina.[12] Villages were rising rapidly on the banks of the Canal by 1819.[13] Indeed this was the beginning of an era of tremendous growth of cities and villages along the Canal. In his speech of January 4, 1820, to the New York State Legislature Governor Clinton, in praising the completion of the middle section of the Canal, also predicted that "The efforts of direct hostility to the system of internal improvements will in the future be feeble. Honest and well disposed men, who have hitherto entertained doubts, have yielded them to the unparalleled success of this measure."[14]

A meeting of the Commissioners held in October of 1819 at Utica determined the route of the Canal west of the Seneca River. They decided the old route was to be followed to Rochester on the Genesee River, and it was to be completed as soon as conditions

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11. *New York Canal Laws*, Vol. I, p. 450.

12. Ibid., p. 454; *Annual Report of the Canal Commissioners, Communicated to the Legislature, Jan. 25, 1819.* (Albany: Printed by J. Buel, Printer to the State, 1819), p. 26.

13. *New York Canal Laws*, Vol. I, p. 437.

14. Ibid., p. 438.

would allow. Three routes from Rochester were proposed, but the final decision was left to be made at a later date.[15]

In May of 1820 navigation was opened on the middle section of the Canal.[16] On May 2, 1820, Henry B. Elly of Utica placed an advertisement in *The Albany Gazette* on June 22, 1820, which stated:

> The public are respectfully informed that the Erie canal is open for navigation from Utica west, to Salina and Montezuma, near Cayuga Lake, ninety-four miles.[17]

In his speech of November 7, 1820, to the New York State Legislature, Governor Clinton revealed that fifty-one miles of the Canal between the Genesee River and Montezuma, including fifteen locks, were under contract and he expressed an opinion that the whole distance of sixty and a quarter miles, with two additional locks, could be completed by September 1, 1821.[18] But this estimate could not be realized, because a number of workers had become ill. Consequently one thousand additional men were needed to work on the Canal, and liberal wages were paid to the workers.[19] The preparatory work was done during the winter of 1821-22, and with

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15. *Niles' Weekly Register*, Vol. XVII, No. 12 (November 20, 1819), p. 178.

16. *Annual Report of the Canal Commissioners of the State of New-York, Presented to the Legislature, 12th March, 1821.* (Albany: Printed by Cantine & Leake, Printers to the State, 1821), p. 12.

17. *The Albany Gazette*, June 22, 1820, p. 4.

18. *New York Canal Laws*, Vol. II, p. 5.

19. *Niles' Weekly Register*, Vol. XXII, No. 22 (July 27, 1822), p. 352.

the advent of spring active construction along the path of the Canal was begun. Although it was difficult to procure the required number of laborers, between 4 and 7,000 had been employed constantly through the entire season.[20] Because of this delay it was only in July 1822 that the Montezuma Marshes section was completed satisfactorily. In their Annual Report presented to the Assembly on February 24, 1823, the Canal Commissioners reported that "By great and persevering exertions, the excavation was so far completed, through this section of the canal, as to allow of the passage of a boat the thirtieth day of July last."[21] Thus on July 30, 1822, boats passed the Canal over the Cayuga marshes.

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20. *New York Canal Laws*, Vol. II, p. 109.
21. Ibid., p. 103.

CHAPTER VI

CONSTRUCTION EQUIPMENT USED ON THE ERIE CANAL PROJECT

When the Canal was being dug steam shovels were yet unheard-of. Instead, rock and dirt were excavated with pick and shovel, and carried off in wheelbarrows. Thousands of men labored on this almost impossible task -- Yankees from the rocky Vermont farms, Negroes who collapsed with malaria, but mostly the Irish, who had left their famine-ridden homeland to labor on this ditch. The rock, sand, mud, and mosquitoes made the job difficult, but the industrious Irishmen were able to ditch forward approximately 16 feet per man [per day]. Malaria claimed many lives as did accidents and exposure. Some were injured by blasts and landslides. Still others were hurt in the wild Saturday-night brawls when the hard-drinking Irish were relaxing with barrels of frontier whiskey.[1]

The ingenuity of the Yankees was exemplified in the tools they devised in the construction of the Canal. One might say that necessity compelled the contractors to devise a number of labor-saving contrivances.

The plow and the scraper were used for the first time in the building of the Canal, and a plow with an added cutting

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1. Harlan H. Hatcher, *The Great Lakes*. (London, New York, Toronto: Oxford University Press, 1944), pp. 183-184.

blade was invented to use on the small roots. These small roots and fibers which had spread over the topsoil of the timbered land presented a great barrier to the excavation work. A narrow plow was devised to cut them; it was made of a heavy piece of iron securely attached at the upper edge by the beam, and in the back by the handle. The front, cutting edge of the iron was covered with steel. It was very sharp and resembled the front of a coulter, except that it became smaller as it neared the beam. The lower portion had a smooth finish and gradually reached a thickness of about four inches toward the handle. This implement was used to cut up roots not more than two inches in diameter, so that they could more readily be picked and dug out of the path of the shovel and scraper. The plow was drawn by two yoke of oxen.[2]

There were other clever devices by which the canal builders dealt with the many natural obstacles which faced them. A dumping wheelbarrow and a shovel with a sharp edge was used for cutting roots and swamp muck.[3] A cable fastened to the pinnacle of a tree and coiled around a wheel which was operated by an

2. *Annual Report of the Canal Commissioners, Communicated to the Legislature, Jan. 25, 1819.* (Albany: Printed by J. Buel, Printer to the State, 1819), p. 13; *New York Canal Laws*, Vol. I, p. 405.

3. Harlow, *op. cit.*, p. 53.

endless screw permitted one man alone to bring down the largest trees.[4]

A young worker of the Canal invented an engine to pull stumps; it was composed of two twelve-foot wheels connected by an eight-foot long tree trunk which served as an axle. The spokes of another wheel fitted into the axle; on the ends of these spokes was fixed a huge grooved tire that was coiled with rope. The wheels were wedged so that the stump was on the inside of them, and a chain fettered it to the axle. Horses were hitched to the rope that was fastened around the inner wheel. With this leverage the stump was extracted and the large wheels bore it off.[5] This stump puller was put into use near Syracuse.

At great expense and after much experimentation, an engineer, Canvass White, discovered cement in the year 1819. Prior to its discovery a group of men had contracted to supply quicklime to canal structures. They burned a large kiln and delivered it, but after using it the purchasers found that it would not slake. White learned of this and began experimenting. Stone from the same ledge was burned, pulverized,

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4. Noble E. Whitford, "The Canal System and Its Influences," In Alexander C. Flick, Ed., *History of the State of New York*. Vol. 5: *Conquering the Wilderness*. (New York: Columbia University Press, 1934), p. 317.

5. Walter D. Edmonds, *Erie Canal*. (Boston: Little, Brown, and Co., 1933), pp. 227-228.

mingled with sand, then rolled into a ball and put into a bucket of water overnight. The next morning it was discovered to have set. This new discovery saved the State of New York a great deal of money that would have been spent on importations.[6]

New inventions, new men and horses were going into the marshland almost every day. Men, teams of horses and shovels filled the swamp, and digging progressed rapidly. Constantly moving into the area were wagons loaded with food for the men, hay for the animals, and new tools for the construction work. The contractors provided iron wheelbarrows to transport mud, spades molded like the marks on playing cards to cut roots, and sharp ploughs and scoops.[7]

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6. Whitford, "The Canal System and Its Influences," pp. 318-319.

7. Edmonds, *op. cit.*, p. 227.

CHAPTER VII

THE FINAL STAGES OF THE CANAL CONSTRUCTION

The Report of the Canal Commissioners in 1820 took a stand against a request of the lawmakers to finish work on the eastern portion of the Erie before beginning on the western section. They pointed out that some contracts had already been let on the western section, and the contractors had incurred expenses without an advance in funds. Some of the expenses to which they had been subjected were the construction of huts for the workers and shelter for the cattle, the purchase of implements necessary to do the work on the canal, such as spades, shovels, carts, etc., the purchase of food for both the men and the animals, and the cost of transporting these items to the construction site. The reason that no advances had been made to the contractors was that funds had not been allocated for this purpose.[1]

The construction work continued steadily forward, and by 1821 the Canal was opened at Little Falls[2] and Schenectady.[3]

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1. *New York Canal Laws*, Vol. I, pp. 465-466.

2. *The Annual Report of the Canal Commissioners of the State of New-York, Presented to the Legislature, the 27th February, 1822.* (Albany: Printed by Cantine & Leake, Printers to the State, 1822), p. 19.

3. *New York Canal Laws*, Vol. II, p. 70; *The Annual Report of the Canal Commissioners of the State of New-York, Presented to the Legislature, the 27th February, 1822.* (Albany: Printed by Cantine & Leake, Printers to the State, 1822), p. 20.

For geological and engineering reasons, it was necessary to route the Canal through Rochester, which was below the Upper Falls on the Genesee River. An aqueduct was constructed at this point. The contract which gave Rochester the final guarantee of the Canal crossing was let in the fall of 1821. The building of an aqueduct was a daring venture in those days, and involved many difficulties. The first contractor was William Brittin. He had just completed the construction of the new State prison at Auburn, and to alleviate the shortage of laborers at Rochester he brought with him about thirty convicts. A great many of the convicts escaped, which was a cause for alarm among the citizenry and the convict labor was subsequently replaced by the labor of free Irish immigrants who had just arrived. Added delays were encountered when Brittin died and a new contract had to be let, and when ice demolished the partially finished piers. By September 1823 the cost had risen to $83,000.[4] The huge 800-foot stone aqueduct was, however, already receiving favorable comments from engineers who visited it.[5]

In 1822 the Canal was opened at Rochester.[6] When the Canal was opened many groups of new settlers came to Rochester and it

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4. McKelvey, *op. cit.*, pp. 91-92.

5. One of the visitors who admired the stone aqueduct was a Royal water and building inspector from Württemberg, A.Duttenhofer, who visited the United States in 1826 and in 1835 published a book on his experiences here. For his description of Rochester and the huge 800-foot stone aqueduct see his *Bereisung der vereinigten Staaten von Nordamerika, mit besonderer Hinsicht auf den Erie-Canal.* (Stuttgart: Bei G.W. Löflund, 1835), p. 39. For an illustration of the Canal over the Genesee River in Rochester see Appendix A.

6. *New York Canal Laws*, Vol. II, p. 100.

began to become a thriving community. Perhaps the most predominant of these new groups was the Irish, who had first come to work on the Canal. A few of their families established themselves around the log cabin which the Irish pioneer James Dowling build in 1817 on the river road to Carthage. This colorful, troublesome settlement was known as Dublin, and it gained admittance to the corporate limits in 1823.[7]

In 1822 a traveller reported that he had journeyed 160 miles by boat on the Erie Canal. His trip had taken him from Little Falls to Utica, a distance of 22 miles; Utica to Montezuma via Rome, Syracuse and Weed's Basin, which was 96 miles; he then crossed the Seneca River and the Cayuga Marshes at Montezuma, 6 miles; then went up the River Clyde 6 1/2 miles to the Blockhouse. Here he again took the Canal to Harwell's Basin, passing by the villages of Lyons and Palmyra. Passenger boats with good accommodations, and freight boats with huge cargoes of produce for Utica were seen on this route. Freight was transported from Montezuma to Utica at five cents per hundredweight.[8]

Indeed the traffic was so extensive that *Niles' Weekly Register* of November 23, 1822, predicted: "The revenue received

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7. McKelvey, *op. cit.*, p. 104.

8. *Niles' Weekly Register*, Vol. XXII, No. 18, (June 29, 1822), p. 275.

on the Erie Canal for tools will exceed 60,000 dollars for the present year!"[9]

In 1823 the Canal was opened at Brockport[10] and Albany.[11] A deep excavation was necessary for the construction of the Canal at Lockport. Huge wooden rigs and block and tackle were employed for the digging. Great quantities of granite were removed from the gorge, and workmen labored at ground level and also in the channel itself.[12] Finally by September 8, 1824, the Canal was completed to Lockport.[13]

Among the new element in Rochester were a small group of both native-born and foreign migrants who were on their way west through the Canal. In 1824 boats from the East were seen going through Utica carrying families, their household goods and farming implements, headed for Genesee County, Ohio, or the Michigan Territory. Wagons, which up to that time carried the pioneers,

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9. Ibid., Vol. XXIII, No. 13 (November 30, 1822), p. 208.
10. *New York Canal Laws*, Vol. II, p. 163.
11. Ibid., p. 172.
12. For a full page illustration entitled "Process of Excavation Lockport," see Cadwallader D. Colden, *Memoir, Prepared at the Request of a Committee of the Common Council of the City of New York, and Presented to the Mayor of the City, at the Celebration of the Completion of the New York Canals.* (New York: Printed by Order of the Corporation of New York by W. A. Davis, 1825), facing page 298. See also Appendix B.
13. *The Annual Report of the Canal Commissioners of the State of New-York, Presented to the Legislature, March 4, 1825.* (Albany: Printed by Croswell & Van Benthuysen, 1825), p. 3.

were almost never seen.

On April 12, 1824, De Witt Clinton was removed from the office of Canal Commissioner in the New York State Senate by a vote of twenty-one to three, and in the House of Assembly by a vote of sixty-four to thirty-four.[15] On the same day the Legislature adjourned. Although the official documents do not include the causes for this action, the reason behind Clinton's removal was obvious. It was politically motivated, and both parties appeared united in desiring his removal. According to *Niles' Weekly Register* the removal of Clinton from office was a "mere political ruse de guerre, to operate on the presidential election!"[16] An editorial in the New York morning paper, the *New-York Daily Advertiser*, commenting on the removal of Mr. Clinton, said:

> We cannot believe this most unjust measure will meet with the approbation of the respectable citizens of this great state. To Mr. Clinton's policy they are indebted, for all the advantages which this gigantic work promises to them and their posterity, to all future generations. We shall be much disappointed if they, as a body, do not express in a most decided manner, their resentment for a measure which not merely disgraces those by whom it was adopted, but degrades and discredits the character of the state.[17]

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14. McKelvey, *op. cit.*, p. 105.
15. *New York Canal Laws*, Vol. II, pp. 222-224.
16. *Niles' Weekly Register*, Vol. XXVI, No. 658 (April 24, 1824), p. 117.
17. *New-York Daily Advertiser*, April 15, 1824, p. 2.

An editorial in another New York paper described Clinton's removal as:

> The envenomed malignity which displayed itself on this occasion the ungrateful return for 14 years of mental and bodily exertion on the part of Mr. Clinton, to ensure success to a measure which will redound to the credit of the state and the honor of the country, and for which no pecuniary compensation has ever been sought for, or accepted, must cause the cheek of every honorable man who calls himself an inhabitant of New York, to glow with a blush of shame and indignation.[18]

But the removal of Clinton could not impede the completion of the Erie Canal. With deep interest the citizens of the State of New York looked forward to the accomplishment of this great work. Finally the Erie Canal, the largest internal improvement yet begun in the United States, was completed in October 1825, after more than eight years of construction. On October 26, 1825, the boat *Seneca Chief*, with Governor Clinton and other dignitaries aboard, after elaborate ceremonies left Buffalo for New York.[19] They were followed by a flotilla of less distinguished celebrants. On November 4, 1825, these first canal boats from Buffalo arrived in New York. It was a great day in New York, with a parade, speeches, etc. For this memorable occasion an ode was read and a special song sung. The distinguished guests in the Mayor's

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18. *The New-York Evening Post*, April 15, 1824, p. 2.
19. *The Buffalo Patriot*, November 1, 1825, p. 2.

party drank thirteen toasts in celebration.[20] At the climax of the ceremony Governor Clinton poured a keg of Lake Erie water into New York Bay, marking the marriage of the waters and symbolizing the connection between the Great Lakes and the Atlantic Ocean.[21]

The completion of the Erie Canal was an enormous engineering feat. The Canal was forty feet wide, four feet deep and stretched 363 miles from the Hudson River, just north of Troy, westward to Buffalo. Eighty-three locks lifted boats 568 feet, the difference in altitude between the Hudson and Lake Erie.[22] It cost $7,143,789; that was at that time $4.42 for each resident of the State of New York.[23]

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20. *The New-York Evening Post*, November 5, 1825, p. 2; *New-York American*, November 5, 1825, p. 2; *The National Advocate* (New York, N.Y.), November 7, 1825, p. 2; *Mercantile Advertiser* (New York, N.Y.), November 7, 1825, p. 2.

21. For an illustration showing De Witt Clinton emptying the keg of Lake Erie water into New York Bay see Appendix C.

22. *Reise Sr. Hoheit des Herzogs Bernhard zu Sachsen-Weimar-Eisenach durch Nord-America in den Jahren 1825 and 1826.* [Travels Through North America of Karl Bernhard, Duke of Saxe-Weimar-Eisenach During the Years 1825 and 1826]. Herausgegeben von Heinrich Luden. Erster Theil. (Weimar: Bei Wilhelm Hoffmann, 1828), p. 115; John Fowler, *Journal of a Tour in the State of New York, in the Year 1830; with Remarks on Agriculture in Those Parts Most Eligible for Settlers: and Return to England by the Western Islands, in Consequence of Shipwreck in the Robert Fulton.* (London: Whittaker, Treacher, and Arnot, 1831), p. 127.

23. State of New York, *The Erie Canal Centennial Celebration 1926.* The Final Report of the Erie Canal Centennial Commission Submitted to the Governor and the Legislature January, Nineteen Twenty-eight. (Albany: J. B. Lyon Company, Printers, 1928), p. 75.

It is difficult to estimate its importance for the development of the country. Upon its completion the Erie Canal not only linked the Atlantic with the Erie but also the East with West.[24] Its completion opened the Erie Era, during which great masses of people moved westward to satisfy their desire to occupy new land.

When the Erie Canal was completed in 1825, the cost of transportation was so reasonable that great numbers of Eastern families were able to travel to Michigan and its low-priced land. Three hundred passengers, for the most part new settlers, arrived in Detroit by a steamboat every week, and many others made the journey in sailing vessels.[25] Ohio, Indiana, Illinois, and Michigan grew from a total population of less than 800,000 in 1820 to more than four million in 1850, and the Erie Canal was primarily responsible for this growth. Indeed one may say that at that time no other single development had proved as great a stimulant of growth, not only of New York City but also of the Nation at large, as the construction of the Erie Canal. And for the benefits resulting from the construction of this

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24. For a map and profile of the Erie Canal as it appeared in 1826 see Appendix D.

25. Floyd R. Dain, *Detroit and the Westward Movement*. (Detroit: Wayne University Press, 1951), p. 16. For an illustration depicting an Erie Canal "liner" in the early 1830s, see Appendix E.

momentous work, the whole Nation was indebted to the talents and perseverance of the engineers and workers who successfully completed this stupendous undertaking which for some time was considered a doubtful venture by many intelligent, well-informed, and very distinguished citizens.

When a bill organizing a territorial government for Nebraska and Kansas was discussed in the Congress in 1854, opposition arose on the part of the Know-Nothings against the immigrants, who it was felt should not be eligible to receive land there. Senator William H. Seward, Whig of New York, replying to Senator Archibald Dixon of Kentucky, said:

> It is now twenty-nine years ago since the system of internal improvement in this country commenced by the construction of the Erie canal through the State of New York, uniting the tide waters of the Hudson with Lake Erie; and since that time we have perfected five thousand miles of canals, at an expense of $600,000,000, extending our inland navigation from the Mississippi, at its mouth, to the Hudson River at New York, and thus dispensing altogether with what was one of the two great national wants at the time of the American revolution - the navigation of the St. Lawrence. How was that done? I mean, from whence came the labor that did it?
>
> I know of but one American citizen who worked with the spade and wheel barrow on those works. Doubtless there are many others, but I known only one, and he, I am glad to say, is now a member of this floor, [Mr. Wade, of Ohio,] and one of the most able and talented

> members. But, as a general fact, the canals were made by aliens in the process of naturalization. What more have we done? We have made sixteen thousand miles of railroad, connecting the different parts of this Union inseparably together, and thus overcoming the want of centralization, and enabling ourselves to look with pity and contempt upon the statesman who seeks to alarm us into measures of doubtful merit or value, by threatening us with a dissolution of the Union. What labor made all these railroads? I think it was the labor chiefly of foreigners.
>
> Now, what I wish to ask, is, whether these roads and canals have cost too little? Suppose that the foreigners had remained at home, and American native labor had performed this work, can anybody tell what the canals and railroads would have cost?[26]

Referring to Senator Benjamin F. Wade of Ohio, Senator Seward attempted to illustrate that there were not too many native Americans of his kind who had worked with the spade and wheelbarrow on the Erie Canal construction or other canal constructions. It was difficult work, which only the strong in body and spirit could sustain, and this labor force was made up primarily of immigrant labor, of which the Irish immigrants constituted a major part. To them belong our thanks and gratitude for connecting the various parts of this Union inseparably together and thus putting America on the course leading to its present growth.

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26. *The Congressional Globe*, July 12, 1854, pp. 1708-1709.

APPENDIX A

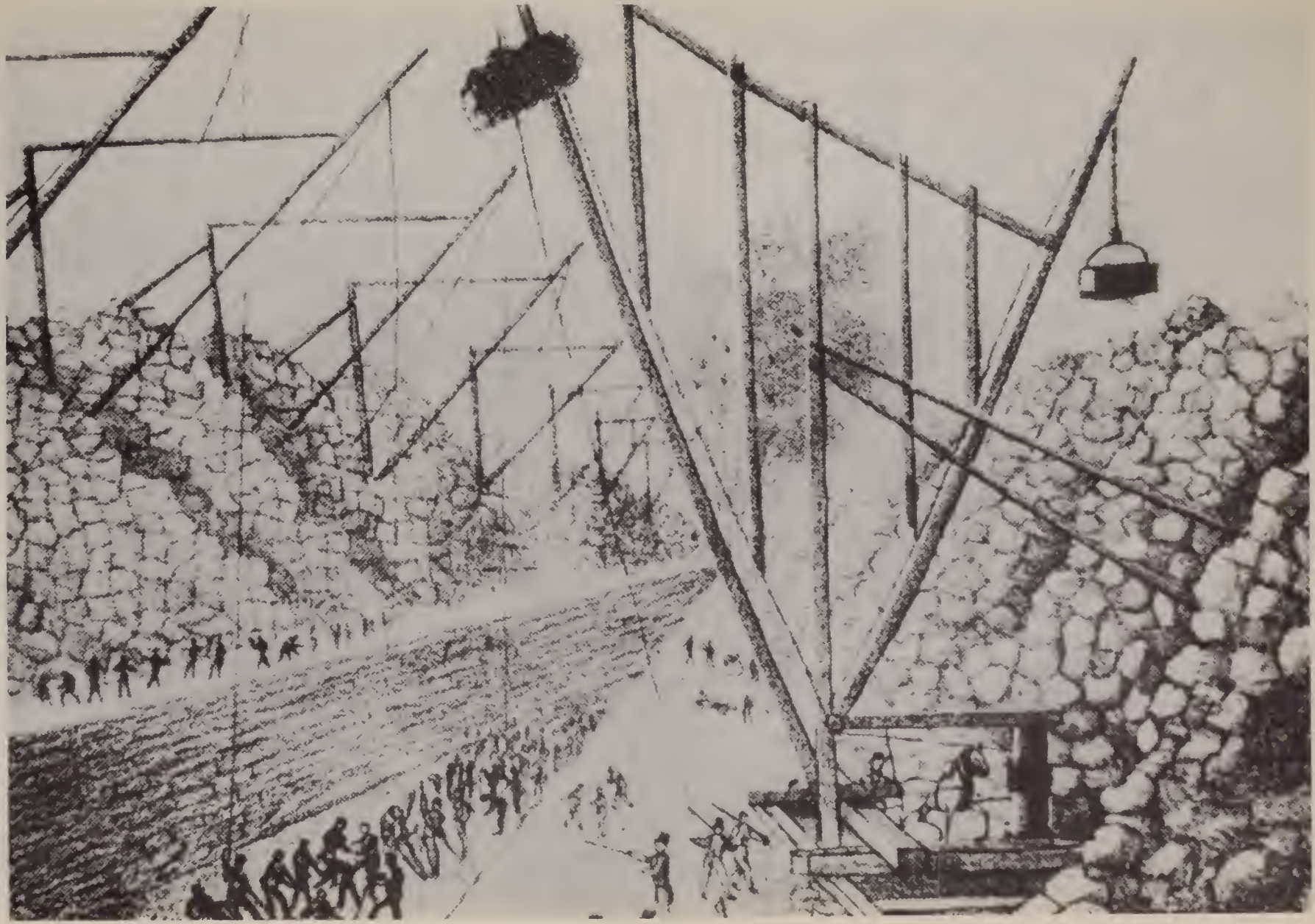
BRIDGE-CANAL OVER THE GENESEE RIVER IN ROCHESTER, 1826[1]



1. A. Duttenhofer, *Bereisung der vereinigten Staaten von Nordamerika, mit besonderer Hinsicht auf den Erie-Canal.* [A Study-Journey Through the United States of America with special reference to the Erie Canal]. (Stuttgart: Bei G.W. Löflund, 1835), facing page 39.

APPENDIX B

THE BUILDING OF THE ERIE CANAL AS DEPICTED IN A LITHOGRAPH
BY CATLIN, 1825



By Courtesy of the Bettmann Archive

DE WITT CLINTON EMPTYING A KEG OF LAKE ERIE WATER INTO NEW YORK BAY IN CELEBRATION OF THE COMPLETION OF THE ERIE CANAL, NOVEMBER 4, 1825



By Courtesy of he New York Public Library

APPENDIX D

MAP AND PROFILE OF THE ERIE CANAL AS IT APPEARED IN 1826[1]



1. A. Duttenhofer, *Bereisung der vereinigten Staaten von Nordamerika, mit besonderer Hinsicht auf den Erie-* Canal. (Stuttgart: Bei G.W. Löflund, 1835), listed as Tafel II, following page 134.

APPENDIX E

ERIE CANAL "LINER" IN EARLY 1830's



By Courtesy of the Buffalo Historical Society



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